Remarks/Arguments

Reconsideration of the present application, as amended, is respectfully requested.

There are 13 claims pending in this application. These are claims 1 – 4, 6, and 9 – 16. Claims 3 – 5 have been previously amended. Claims 3 – 4 and 9 – 10 have been withdrawn from consideration as pertaining to nonelected subject matter. By this Amendment, Applicants have amended claims 1, 2, 13 and 16. The above mentioned amendments add no new matter to this application. Support for these amendments can be found in the claims, as originally filed, and on pages 1 and 2 of WO2005/040091, the published PCT patent application of which the present application is the U.S. national phase application.

In the office action, the Examiner objected to claims 1 and 2 because there were no parentheses around the reference characters "I" and "II" used to identify the genera of compounds depicted and defined in these claims. By the above amendments, Applicants have inserted the missing parentheses.

The Examiner rejected claims 1 – 6 and 11 – 15 under the second paragraph of 35 U.S.C. 112, stating that the substituent to which R2 is para and the substituent to which R6 is meta are not clear. By the above amendments, Applicants have amended the above rejected claims to specify that R2 is para relative to the fixed position R1 ring variable and that R6 is meta relative to the fixed position R1 ring variable. In view of these amendments, Applicants respectfully request that the foregoing rejection be withdrawn.

The Examiner rejected claim 2 under the fourth paragraph of 35 U.S.C. 112 for being of improper dependent form for failing to further limit the subject matter of a previous claim. Specifically, the Examiner explained that when "n" is "1", or when the R'_4 containing substituent is in the ortho position relative to the fixed position R1 ring variable, the claimed compound is outside the scope of claim 1. By the above amendments, Applicants have amended claim 2 such that "n" can not be "1" and such that the R'_4 containing substituent can not be in the ortho position relative to the fixed position R1 ring variable. In view of these amendments, Applicants respectfully request that the foregoing rejection be withdrawn.

The Examiner rejected Claims 1 – 2, 6 and 11 – 16 under 35 U.S.C. §103(a) as being obvious over U.S. Patent 6,004,565 to Chiba *et al.* (hereinafter "Chiba"). For the reasons that follow, Applicants traverse this rejection and respectfully request that it be withdrawn.

Applicants reiterate and incorporate by reference all arguments submitted in the Amendment that Applicants' attorney submitted in this case on July 16, 2010 to counter the prior issued Section 103(a) rejection based on the Chiba reference.

Chiba discloses compounds that are useful in inhibiting an immune response by an immunosuppression mechanism known as accelerated lymphocyte homing immunosuppression ("ALH-immunosuppression"). Chiba describes two genera of compounds, one acyclic and one monocyclic, that represent ALH-immunosuppressive compounds. The Examiner has taken the

position that the compounds of claim 1 are embraced within the cyclic genus, the description of which begins in column 3 at line 46 of Chiba and ends in column 4 at line 41.

The definition of the substituent "W" in the cyclic genus of Chiba reads as follows: "*W is hydrogen; a straight or branched chain alkyl having 1 to 6 carbon atoms; a straight or branched chain alkenyl having 1 to 6 carbon atoms; a straight or branched chain alkynyl having 1 to 6 carbon atoms; a phenyl, which may be substituted by hydroxy; R4(CH$_2$)$_n$;* **or a straight or branched chain $C_1 - C_6$ alkyl substituted by 1 – 3 substituents selected from the group consisting of a halogen, a cycloalkyl and a phenyl, which may be substituted by hydroxy;**". Applicants submit that the compounds of claim 1 of the present invention do not fall within the scope of the cyclic genus of Chiba because the definition of W does not include hydroxymethyl or any hydroxyalkyl group. The substituent group "hydroxymethyl" does not fall within the italicized portion of the definition of W because it is not an unsubstitued alkyl group and, clearly, the italicized term "*which may be substituted by hydroxy*" refers only to the immediately preceding "phenyl", because each of the options for the different identities of W are separated by semicolons, such that the italicized language "*a phenyl, which may be substituted by hydroxy*" represents a separate and distinct option for the identity of *W*.

In the Office Action, the Examiner stated that the portion of the definition of X in Chiba that appears in column 3 at lines 57 – 61 (which corresponds to the ***bolded*** text above) is "somewhat ambiguous". She further stated that "[i]t is unclear what exactly may be substituted by hydroxyl", and that "[i]t is the position of the examiner that the C1-C6 alkyl chain may be substituted by hydroxy". Applicants respectfully disagree with the Examiner. While there may be some degree of ambiguity with respect to whether the phrase "**which may be substituted with hydroxy**", in the portion of the definition of X in Chiba that appears in column 3 at lines 57 – 61 (which corresponds to the bolded text above), refers only to the immediately preceding "phenyl" as opposed to referring to any of the preceding "halogen", "cycloalkyl" and "phenyl", Applicants submit that those of skill in the art would not interpret this phrase to refer to the "**straight or branched chain $C_1 - C_6$ alkyl**" that appears at the beginning of the bolded text. Applicants position is supported by the plain English meaning of the bolded text. Such text specifically defines the substituents on the "straight or branched chain $C_1 - C_6$ alkyl" in the following manner: "substituted by 1 – 3 substituents selected from the group consisting of a halogen, a cycloalkyl and a phenyl, which may be substituted by hydroxy". It does not say, "substituted by 1 – 3 substituents selected from the group consisting of a halogen, a cycloalkyl, a phenyl *and a hydroxy*". Thus, the plain English meaning of this phrase is that the hydroxy was meant to be a *substituent on a substituent* on the "straight or branched chain $C_1 - C_6$ alkyl", as opposed to a substituent on the "straight or branched chain $C_1 - C_6$ alkyl".

As mentioned above, the only possible ambiguity in the bolded portion of the above definition of X, is whether "hydroxy" was meant to be a possible substituent on phenyl - the last of the three named substituents on the "straight or branched chain $C_1 - C_6$ alkyl", or whether it

was meant to be a possible substituent on all three of "halogen, a cycloalkyl and a phenyl". Applicants submit that, regardless of which of these interpretations is adopted, "hydroxymethyl" is not embraced within the portion of the definition of W that begins with "or" (*i.e.*, the bolded part of the definition above) because hydroxymethyl is an alkyl group that is substituted with hydroxy, in contrast to an alkyl group substituted with a substituent that is substituted with hydroxy.

The Examiner stated that her position is supported by the fact that the "exemplified compound FY720 (col. 5, lines 1 – 8), has W equal to hydroxymethyl" and that "FTY720 has the same amino-1,3-diol head group as required by the most specific claim, claim 16 [of the present application], as well as a C8 alkyl chain para to this head group as required by instant claims 2, 13 and 16." Applicants respectfully submit that the Examiner's reference to the claims of the present application to support an interpretation of a prior art text is misplaced. Such reference is based entirely on hindsight. The claims of the present application are not relevant to the meaning of any part of the Chiba disclosure.

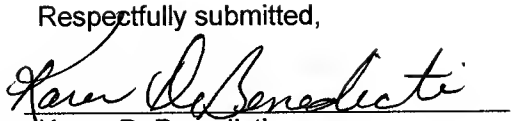
In addition, Applicants submit that Chiba does not state or suggest that the single specifically named ALH-immunosuppressant compound, FTY720, is embraced within or in any way related to either of the two independent genera of ALH-immunosuppressant compounds described in columns 3 and 4 on page 3 of that reference. FTY720 is, in fact, embraced within the genus of compounds disclosed and claimed in U.S. Patent 5, 604,229, which is referred to in column 4 of Chiba, on lines 43 – 44, in the paragraph before FTY720 is specifically mentioned. One of skill in the art, reading Chiba, would have no reason to associate FTY720 with either of the genera of ALH-immunosuppressant compounds mentioned in column 3.

Applicants further submit, as stated in the Amendment submitted on July 16, 2010, that one of skill in the art of organic chemistry or pharmaceutical chemistry reading Chiba would not conceive of the presently claimed compounds with any expectation, let alone a reasonable expectation, that they would be active as ALH-immunosuppressive compounds. Not only are they outside both genera of compounds stated in Chiba to possess such activity, but they are substantially different structurally from the only individually named ALH-immunosuppressive compound in Chiba - FTY720. All the presently claimed compounds differ from FTY720 at least by the presence of a second phenyl group. The compound, FTY720, is not only the only ALH-immunosuppressive compound mentioned in Chiba, but it is stated to be a preferred compound and is the subject of all nine examples in the specification of Chiba.

In view of the above arguments, Applicants submit that all pending claims, as amended, are nonobvious and patentable over Chiba, and they respectfully request that the above

rejection under 35 U.S.C §103(a) be withdrawn.

Respectfully submitted,



Karen DeBenedictis
Attorney for Applicant
Reg. No. 32,977

Novartis Pharmaceuticals Corporation
One Health Plaza, Bldg. 101
East Hanover, NJ 07936
(862) 778-3785

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